

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
**William A. Hinton State Laboratory Institute**  
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

Luke Goldworm, ADA

Suffolk County District Attorney's Office

By e-mail

February 20, 2012

Re: Comm. v. [REDACTED] State Lab no. [REDACTED]

ADA Goldworm,

Please find below a discovery package for the case noted above. The material is collated in the following manner:

- 1) the chemists' cvs
- 2) the Evidence Office receipt to the Boston Police
- 3) the inventory control card
- 4) the Drug Powder Analysis Form
- 5) the gas chromatography screen
- 6) the gas chromatography/mass spectrometry (gc/ms) data

If you need further clarification of this material, call me directly at (617) 983-6627.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Lawler".

Michael Lawler  
Senior Chemist

Cc: Kate Corbett

## Curriculum Vitae

### Michael Lawler

#### Education:

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975

Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

#### Experience:

**1990-present** currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits (e.g. strychnine in MDMA)

**2005-2008** lecturer in chemistry, Curry College, Milton, Ma.

**1988-1990** New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

**1983-1988** Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

**1982-1983** NENS hypothyroid assay technologist with Tuft's University

**1979-1981** Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

#### Additional education and special training

Drug Analysis, completed six week training course by senior staff within the Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court  
Current Drug Trends – Multijurisdictional Drug Task Force Academy August 2009

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

DEA Special Testing Lab Seminar June 2011

Sigma-Aldrich LC/MS – New Applications Fall 2011

#### Journal Publications

Screening, 1992, 1:34-37; Lawler,M., Frederick,S., Rodriguez-Anza, S., Wolf,B., Levy,H., *Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases*

Genetic Screening, 1990, 11-18, Mitchell,M., Lawler,M., Walraven,C., Hermos,R., *To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?*

The Journal of Pediatrics, 116: 78-83, Secor-McVoy,J., Lawler,M., Schmidt, M., Ebers,D., Hart,P., Pettit,D., Blitzer,M., Wolf,B., *Partial Biotinidase Deficiency: Clinical and Biochemical Features*

#### Professional Affiliations

Northeastern Association of Forensic Scientists (NEAFS) since 2005

#### Awards

Theobald Smith Education Grant for graduate studies

# Curriculum Vitae

Kate A. Corbett

## Education

**Bachelor of Science Degree, CHEMISTRY May 2003**

**MERRIMACK COLLEGE**

Coursework included: Organic Chemistry, Inorganic Chemistry, Quantitative Analysis, Instrumental Analysis, Physical Chemistry, Physics, Calculus

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## Employment

**Chemist II State Laboratory Institute (March 2008-Present)**

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance and trafficking substances to determine violation of the Massachusetts drug laws
- Responsible for the identification of pharmaceuticals to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation, microscopes and balances for forensic drug analysis

**Chemist I State Laboratory Institute (2005-March 2008)**

Massachusetts Department of Public Health

Drug Analysis Laboratory

- Responsible for the identification of substance to determine violation of the Massachusetts drug laws
- Operate analytical instrumentation for the purpose of performing forensic drug analysis
- Successfully completed an eight week training course in the analysis of drugs conducted by senior staff of the Department of Public Health, Drug Analysis Laboratory
- Appointed an assistant analyst for the Department of Public Health, Drug Analysis Laboratory in 2005

**Research Associate (September 2003 - August 2005)**

SENSOR TECHNOLOGIES, INC - Shrewsbury, MA

- Prepared chemistries used in making sensor beads
- Generated and examined sensors employing fluorescence spectroscopy
- Performed protein, dye and sugar assays using UV/VIS spectrophotometry
- Carried out titrations on ricin using fluorescence correlation spectroscopy
- Statistical analysis of experimental data

**Intern (March 2003 - August 2003)**

MASSACHUSETTS STATE POLICE CRIME LABORATORY - Sudbury, MA

- Assisted in the gathering of case files to fulfill the National Institute of Justice's No Suspect Backlog Reduction Grant
- Observed in the Evidence, Criminalistics, DNA, Drug, Trace, Toxicology, and Bomb/Arson Units



## DRUG RECEIPT

CC # XXXXXXXXXX  
BOOK # ~~100-00000000~~ 39  
PAGE # 173  
DESTRUCTION #

District/Unit C-8

Name & Rank of Arresting Officer Robert C. Young ID# 10343

To be completed by ECU personnel only

Name and Rank of Submitting Officer John J. Foy ID# 1510

Received by \_\_\_\_\_ Date 3-20-10

ECU Control # \_\_\_\_\_

No. [REDACTED]

Date Analyzed:

10/12/10

City: Boston D.C.U. Police Dept.

Officer: P.O. Diana Lopez

Def: [REDACTED]

Amount:

Subst (RES)

No. Cont: 1 Cont: spoon

Date Rec'd: 05/28/2010

No. Analyzed:

Gross Wt.: 56.99

Net Weight:

# Tests:

Residue

5mg

• 2EA C

heroin

Prelim:

heroin

Findings:

# DRUG POWDER ANALYSIS FORM

10/12/10

SAMPLE #

AGENCY

Boston DCM

ANALYST

NRC

No. of samples tested:

Evidence Wt.

56.99

## PHYSICAL DESCRIPTION:

Spoon with residue

Gross Wt ( ):

Gross Wt ( ):

Pkg. Wt:

Net Wt:

044AB 2334 9-3-10

2g = 20.000g

1g = 10.000g

5g = 5.000g

1g = 0.999g

## PRELIMINARY TESTS

### Spot Tests

Cobalt

Thiocyanate ( )



Marquis



Froehde's



Mecke's



### Microcrystalline Tests

Gold

Chloride

TLTA ( )

### OTHER TESTS

gc + (+) heroin

## PRELIMINARY TEST RESULTS

RESULTS

DATE

## GC/MS CONFIRMATORY TEST

RESULTS

heroin

MS  
OPERATOR

KAC

DATE

10/12/10

  
2-20-12

## Sequence Table (Front Injector):

## Method and Injection Info Part:

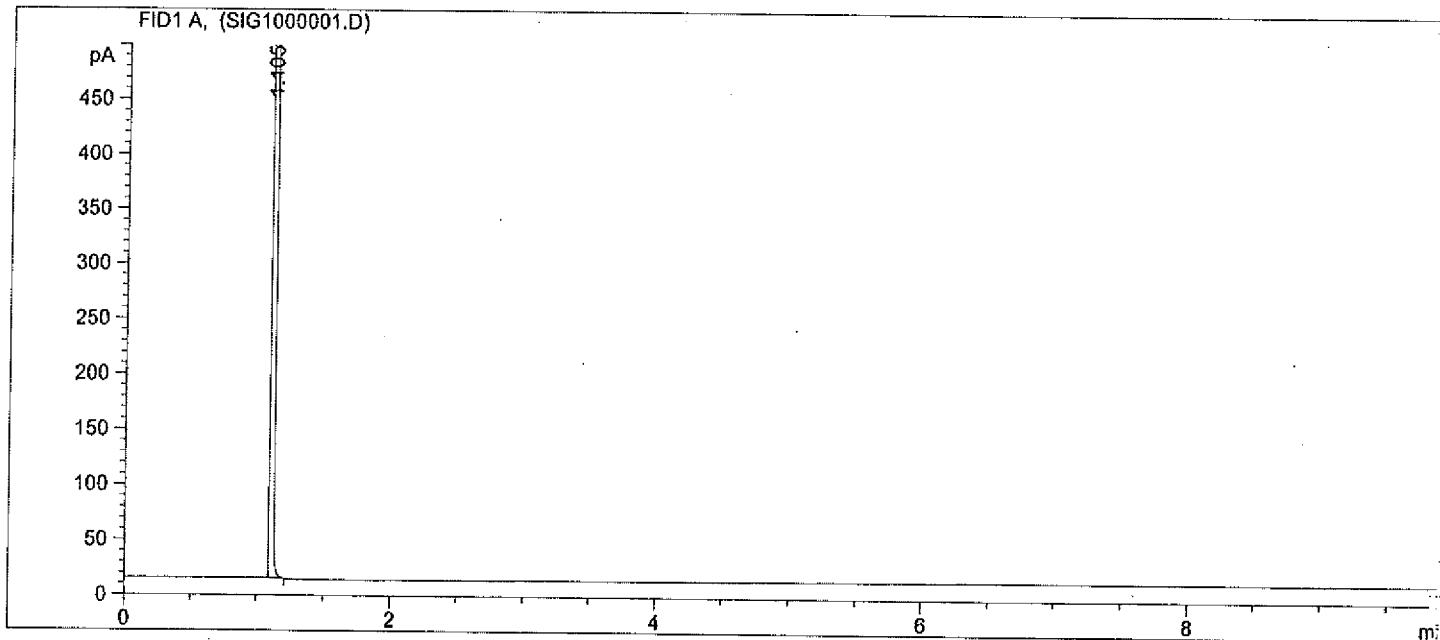
Line	Location	SampleName DataFile	Method	Inj	SampleType	InjVolume
		LimsID				
1	Vial 1	BLANK	ROUTINE	1	Sample	
2	Vial 2	HEROIN STD	ROUTINE	1	Sample	
3	Vial 3	BLANK	ROUTINE	1	Sample	
4	Vial 4	[REDACTED]	ROUTINE	1	Sample	
5	Vial 5	BLANK	ROUTINE	1	Sample	

## Sequence Table (Back Injector):

No entries - empty table!

Sample Name: BLANK

```
=====
Acq. Operator   : ASD                               Seq. Line : 1
Acq. Instrument : Drug Lab GC#4                 Location : Vial 1
Injection Date  : 10/6/2010 1:25:45 PM            Inj : 1
                                                Inj Volume : 1  $\mu$ l
Sequence File   : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method          : C:\CHEM32\1\METHODS\ROUTINE.M
Last changed    : 7/28/2010 1:59:56 PM
=====
```



```
=====
Area Percent Report
=====
```

```
Sorted By          : Retention Time
Multiplier:      : 1.0000
Dilution:        : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A,

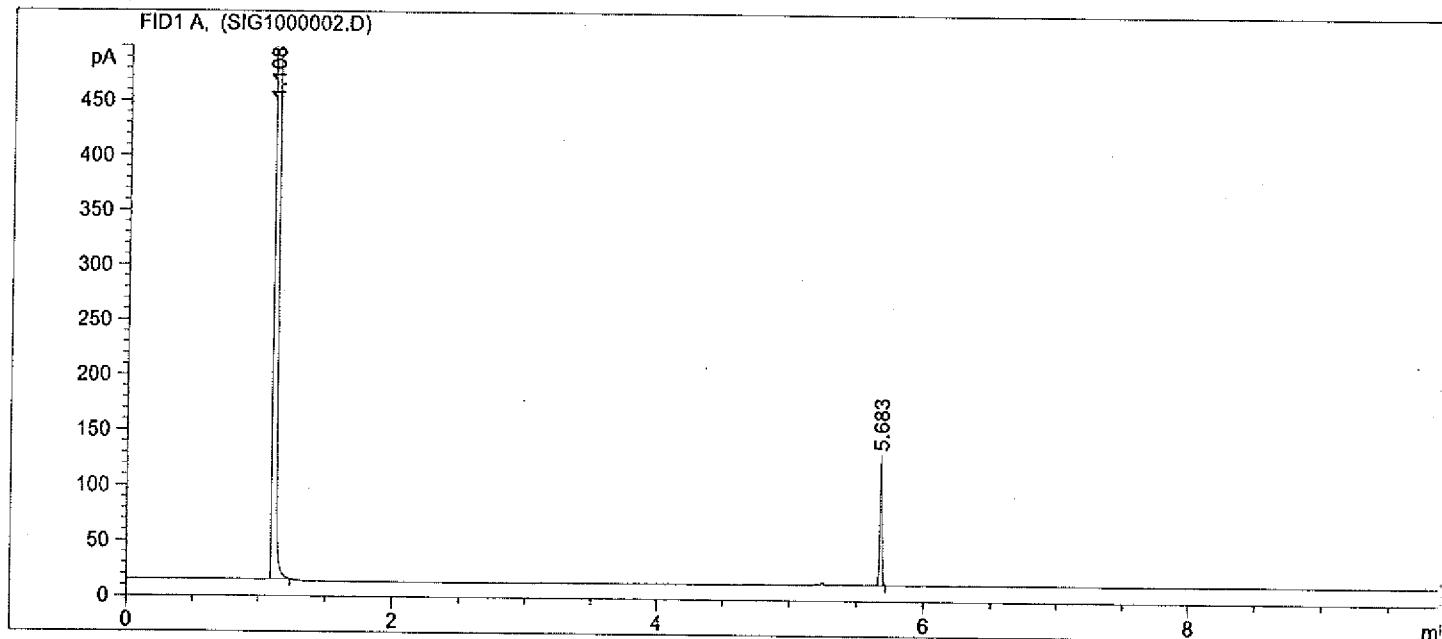
Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.105	1	BB S	6.55781e4	6.96061e4	1.000e2

Totals : 6.55781e4 6.96061e4

```
=====
*** End of Report ***
=====
```

Sample Name: HEROIN STD

```
=====
Acq. Operator : ASD                               Seq. Line : 2
Acq. Instrument : Drug Lab GC#4                Location : Vial 2
Injection Date : 10/6/2010 1:38:39 PM           Inj : 1
                                                Inj Volume : 1  $\mu$ l
Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method : C:\CHEM32\1\METHODS\ROUTINE.M
Last changed : 7/28/2010 1:59:56 PM
=====
```



## Area Percent Report

```
=====
Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A,

Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.108	1	BB S	1.05671e5	1.13547e5	99.87665
2	5.683	1	BB	130.50673	116.18065	0.12335

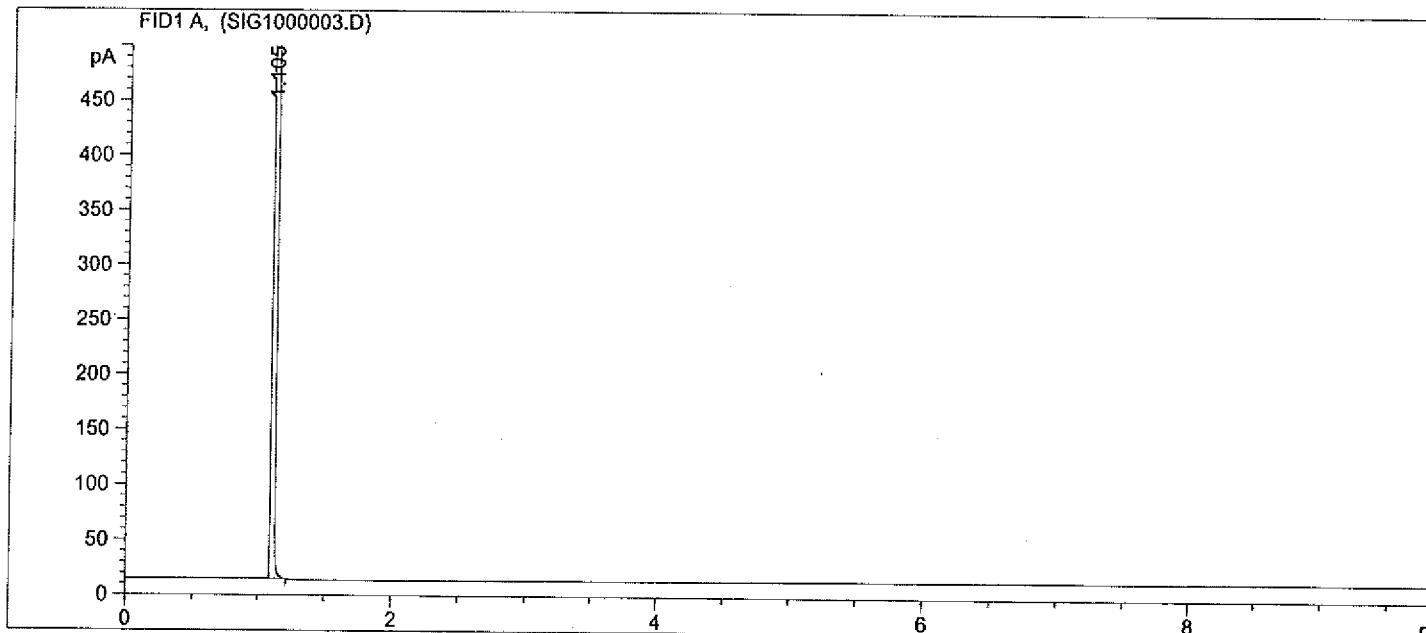
Totals : 1.05801e5 1.13663e5

=====

\*\*\* End of Report \*\*\*

Sample Name: BLANK

```
=====
Acq. Operator   : ASD                               Seq. Line : 3
Acq. Instrument : Drug Lab GC#4                 Location : Vial 3
Injection Date  : 10/6/2010 1:51:39 PM             Inj : 1
                                                Inj Volume : 1  $\mu$ l
Sequence File   : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method          : C:\CHEM32\1\METHODS\ROUTINE.M
Last changed    : 7/28/2010 1:59:56 PM
=====
```



```
=====
Area Percent Report
=====
```

```
Sorted By          : Retention Time
Multiplier:       : 1.0000
Dilution:         : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A,

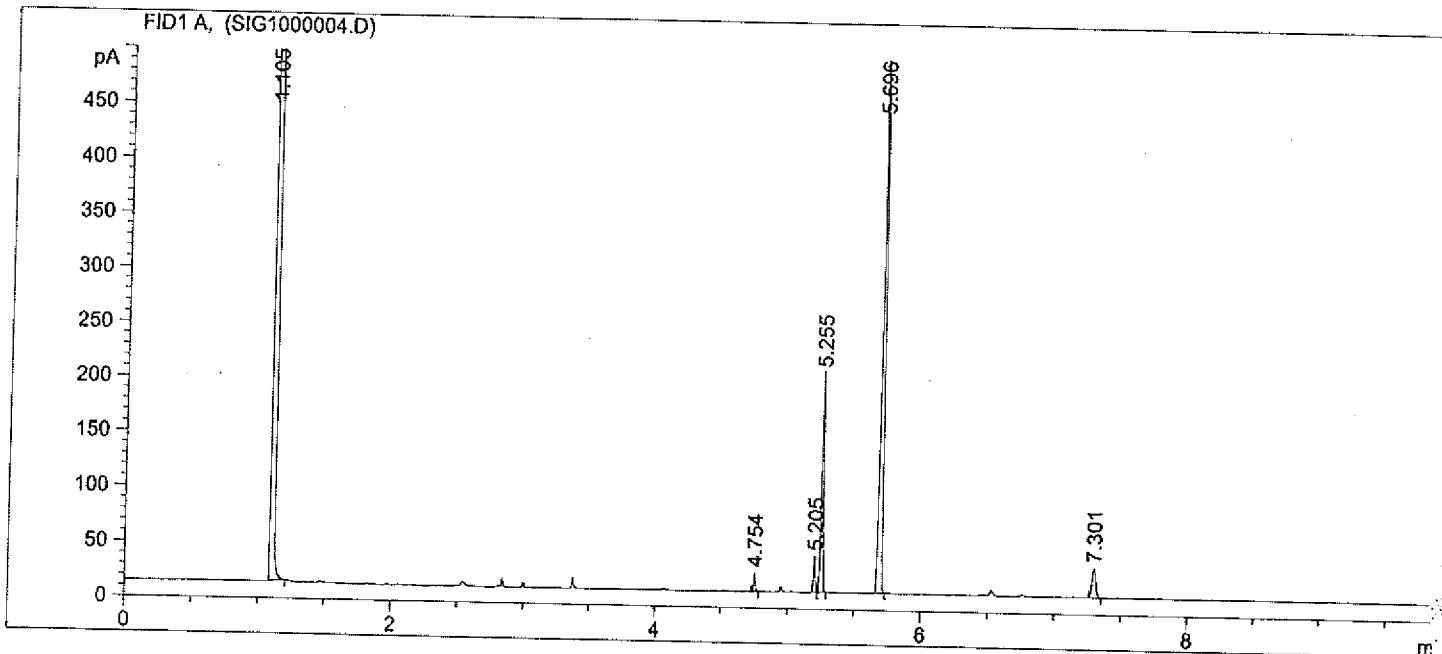
Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.105	1	BB S	6.45042e4	7.14715e4	1.000e2

Totals : 6.45042e4 7.14715e4

```
=====
*** End of Report ***
=====
```

Sample Name: [REDACTED]

```
=====
Acq. Operator : ASD
Acq. Instrument : Drug Lab GC#4
Injection Date : 10/6/2010 2:04:40 PM
Seq. Line : 4
Location : Vial 4
Inj : 1
Inj Volume : 1  $\mu$ l
Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method : C:\CHEM32\1\METHODS\ROUTINE.M
Last changed : 7/28/2010 1:59:56 PM
=====
```



## Area Percent Report

```
=====
Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A,

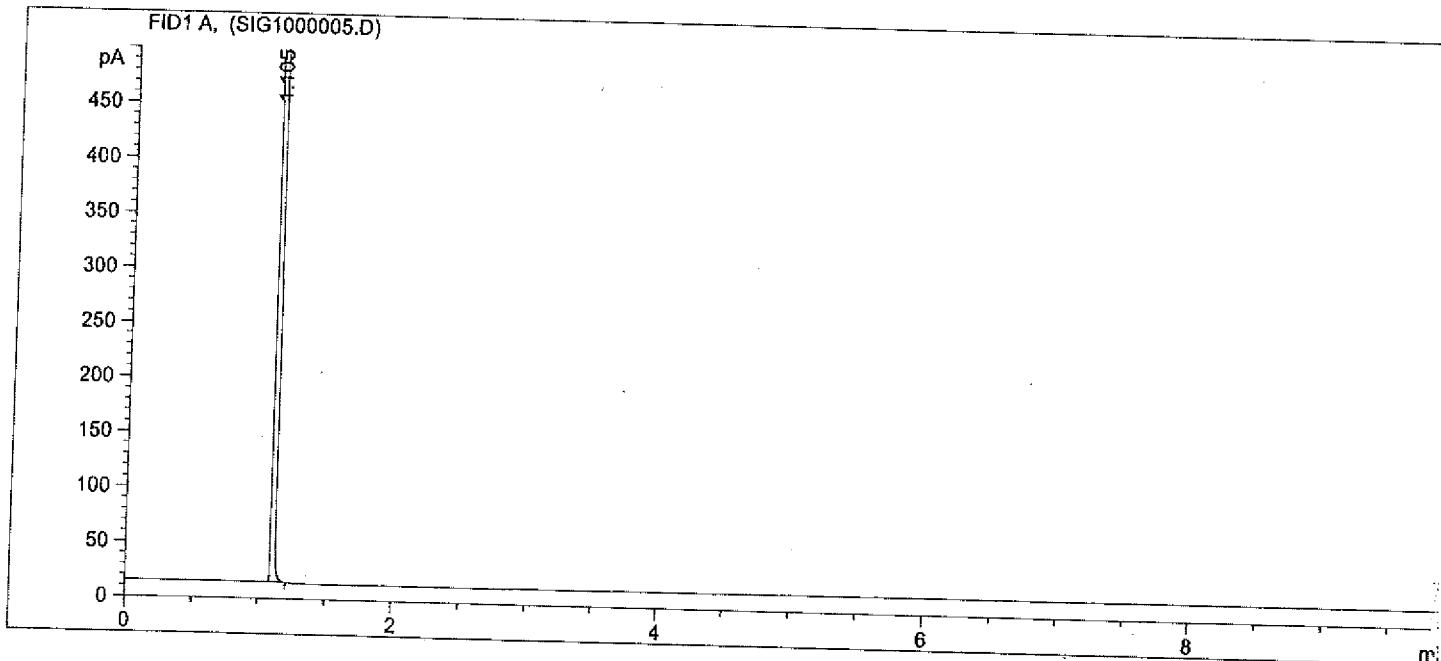
Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.105	1	BB S	6.02781e4	6.98928e4	98.38583
2	4.754	1	BB	14.20824	16.90112	0.02319
3	5.205	1	BV	32.88813	32.28829	0.05368
4	5.255	1	VB	213.23862	199.10071	0.34805
5	5.696	1	BB	676.14111	516.73309	1.10360
6	7.301	1	BB	52.47693	26.54356	0.08565

Totals : 6.12670e4 7.06843e4

\*\*\* End of Report \*\*\*

Sample Name: BLANK

```
=====
Acq. Operator : ASD
Acq. Instrument : Drug Lab GC#4
Injection Date : 10/6/2010 2:17:40 PM
Seq. Line : 5
Location : Vial 5
Inj : 1
Inj Volume : 1  $\mu$ l
Sequence File : C:\CHEM32\1\SEQUENCE\DEFAULT.S
Method : C:\CHEM32\1\METHODS\ROUTINE.M
Last changed : 7/28/2010 1:59:56 PM
=====
```



```
=====
Area Percent Report
=====
```

```
Sorted By : Retention Time
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A,

Peak #	RetTime [min]	Sig	Type	Area [pA*s]	Height [pA]	Area %
1	1.105	1	BB S	6.27408e4	7.11556e4	1.000e2

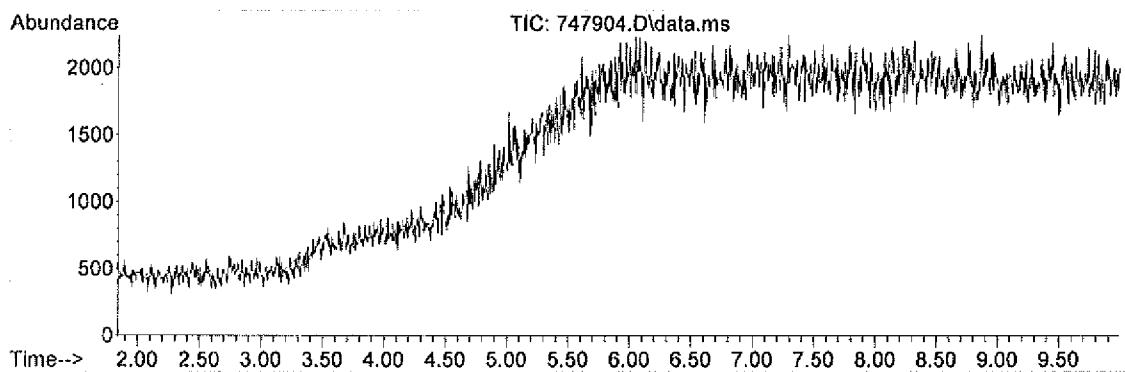
Totals : 6.27408e4 7.11556e4

```
=====
*** End of Report ***
=====
```

✓KAC  
2/17/12

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747904.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 12:27  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

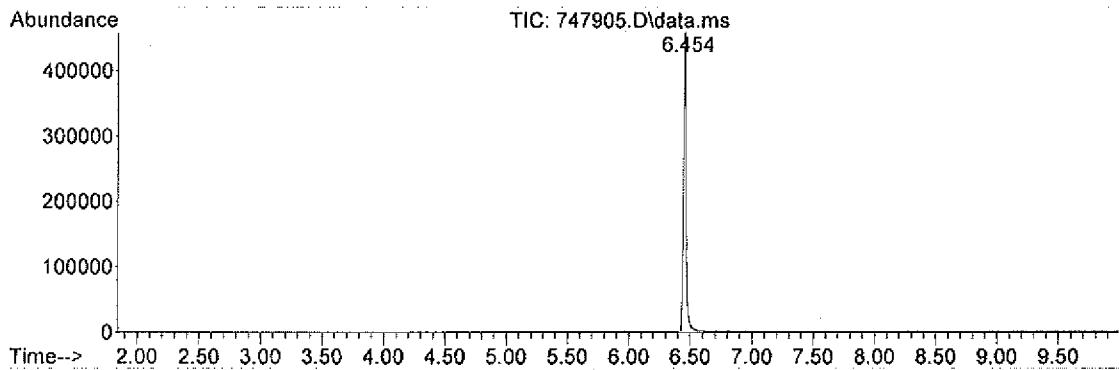


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747905.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 12:39  
Sample Name : HEROIN STD  
Submitted by :  
Vial Number : 5  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



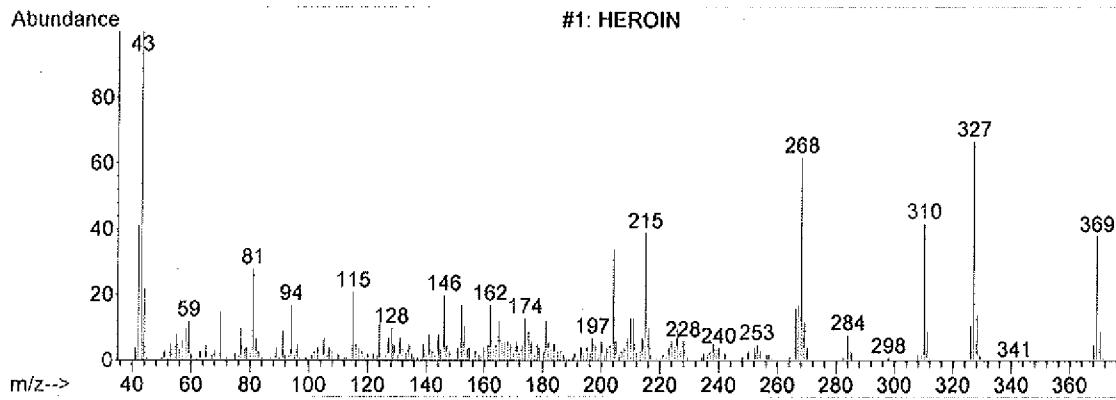
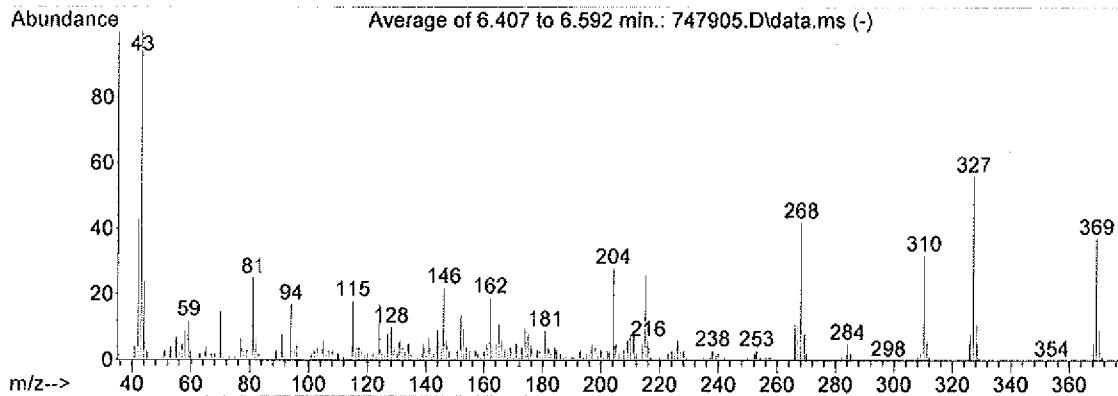
Ret. Time	Area	Area %	Ratio %
6.454	697085	100.00	100.00

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747905.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 12:39  
Sample Name : HEROIN STD  
Submitted by :  
Vial Number : 5  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

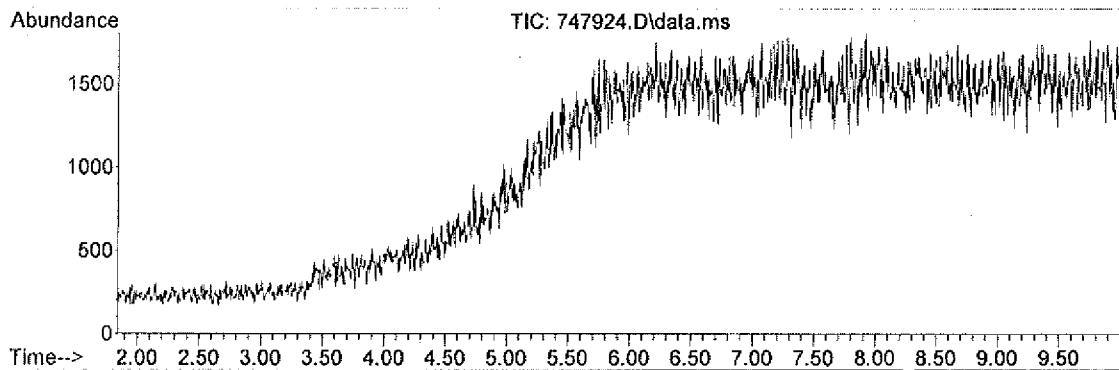
Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	6.45	C:\Database\SLI.L HEROIN	000561-27-3	99



## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747924.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 16:41  
Sample Name : BLANK  
Submitted by : MGL  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

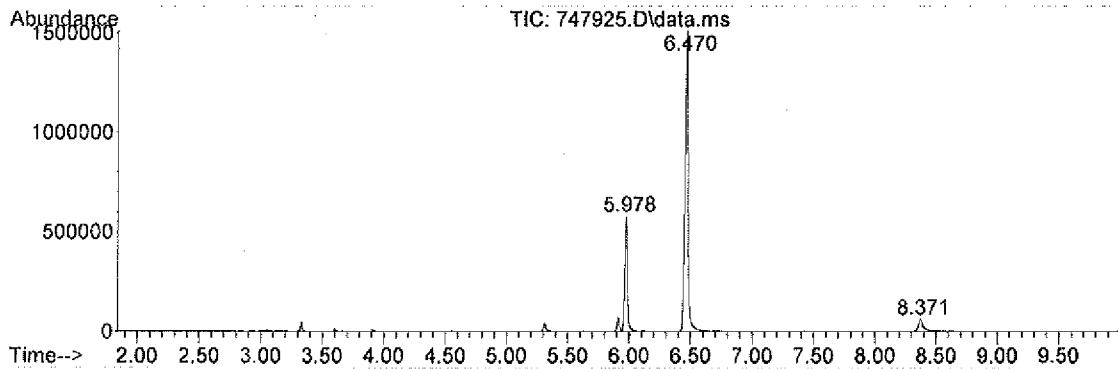


Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747925.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 16:54  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 25  
AcquisitionMeth: DRUGS.M  
Integrator : RTE



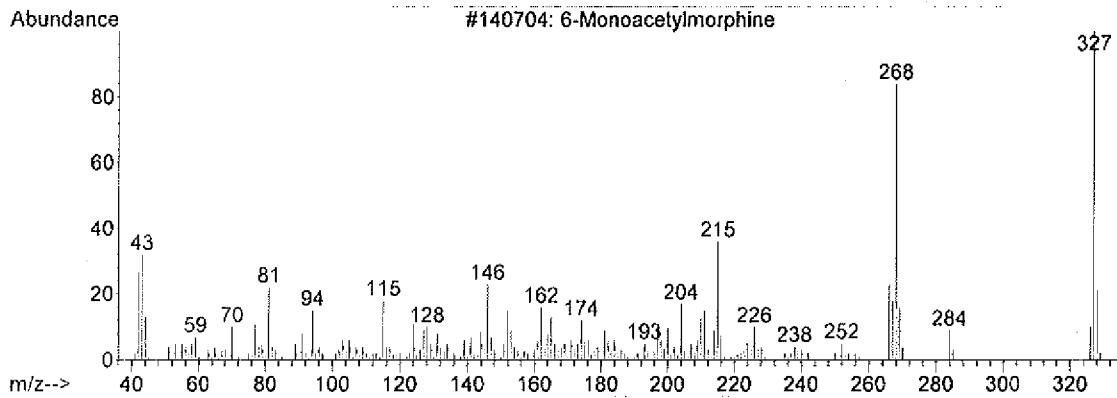
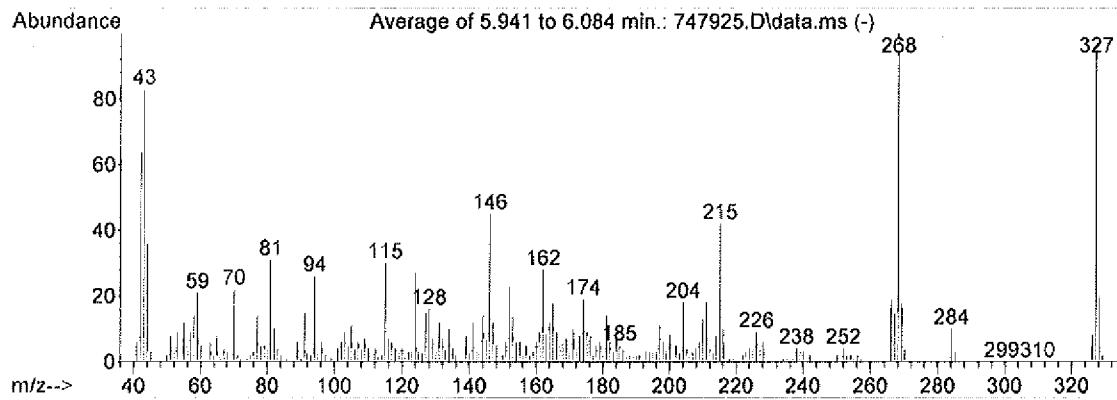
Ret. Time	Area	Area %	Ratio %
5.978	783023	20.90	28.08
6.470	2788073	74.42	100.00
8.371	175274	4.68	6.29

## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747925.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 16:54  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 25  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	5.98	C:\Database\NIST05a.L		
		6-Monoacetylmorphine	002784-73-8	99
		6-Monoacetylmorphine	002784-73-8	99
		6-Monoacetylmorphine	002784-73-8	99

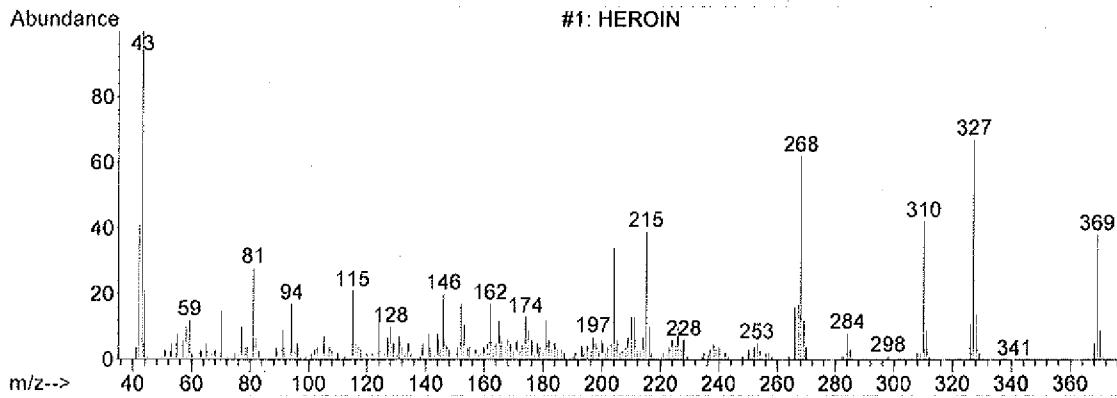
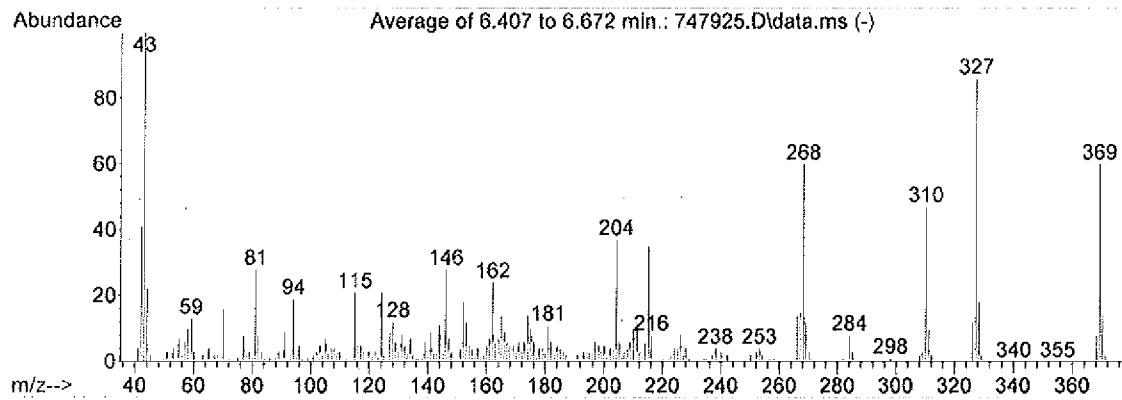


## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747925.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 16:54  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 25  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
2	6.47	C:\Database\SLI.L HEROIN	000561-27-3	99

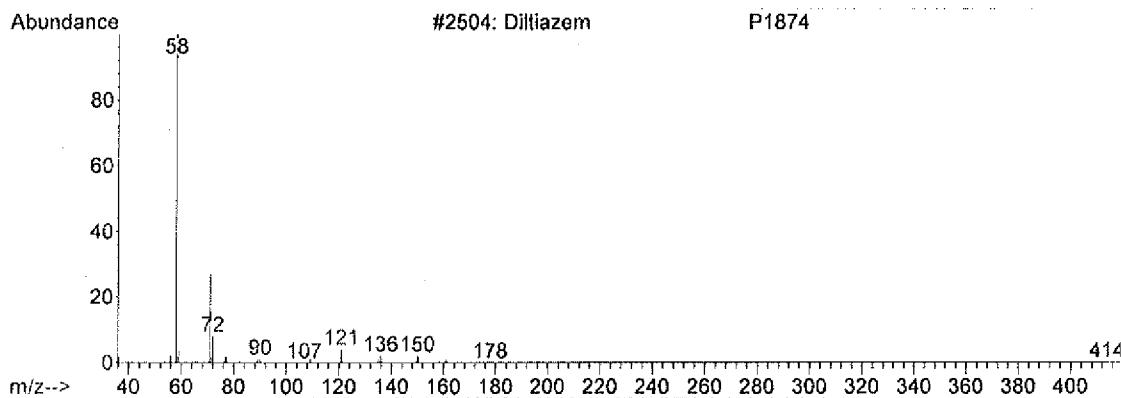
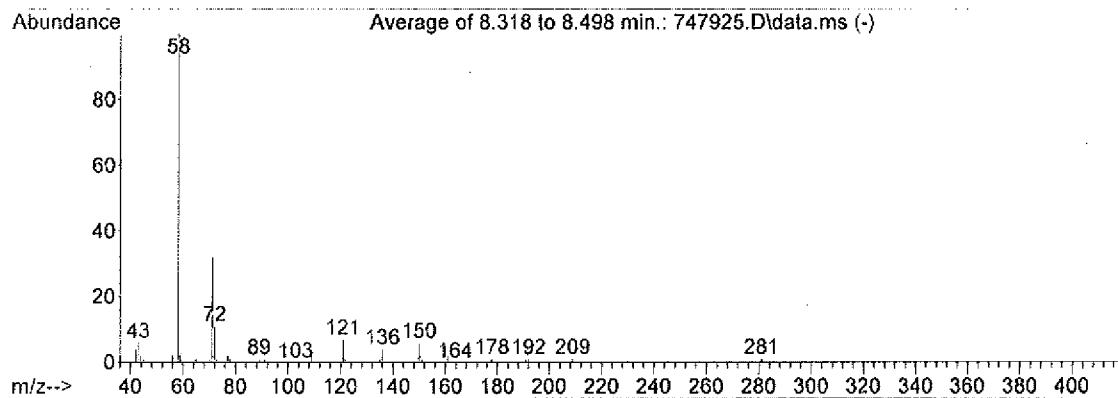


## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747925.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 16:54  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 25  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
3	8.37	C:\Database\PMW_TOX2.L		
		Diltiazem	042399-41-7	86
		Diltiazem-M (desacetyl-)	000000-00-0	78
		Diltiazem-M (O-desmethyl-) AC	000000-00-0	72

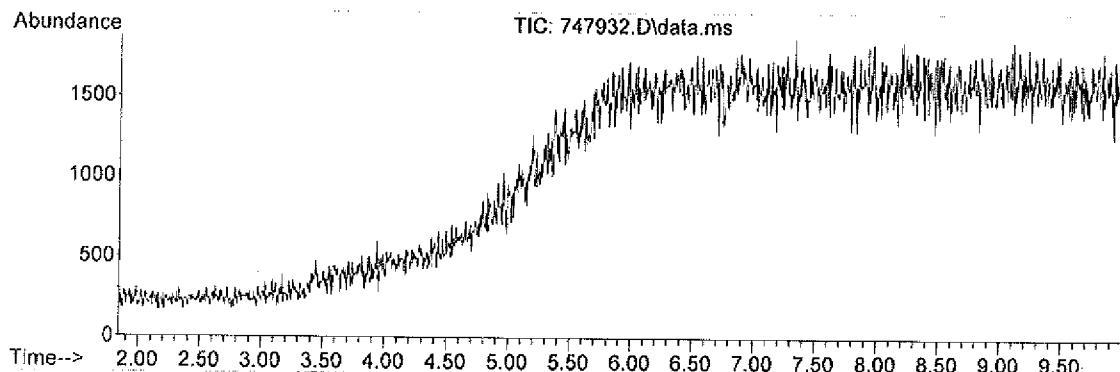


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Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747932.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 18:22  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

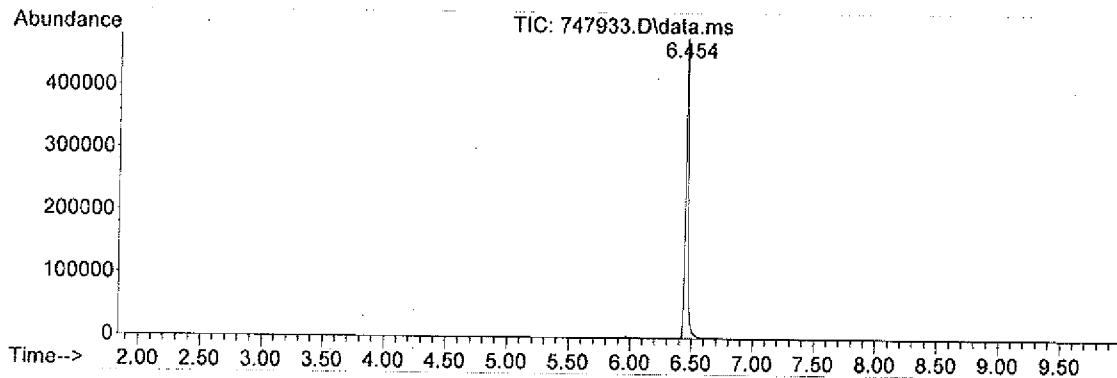
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747933.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 18:35  
Sample Name : HEROIN STD  
Submitted by :  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
6.454	745330	100.00	100.00

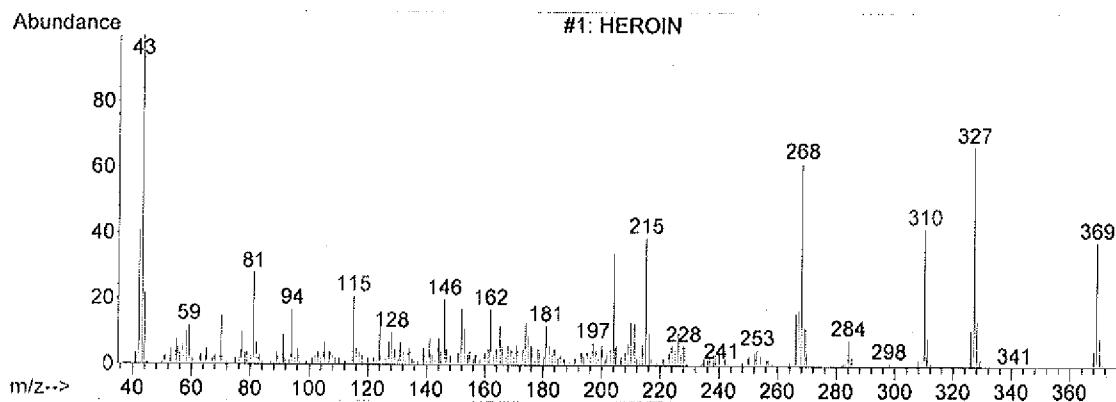
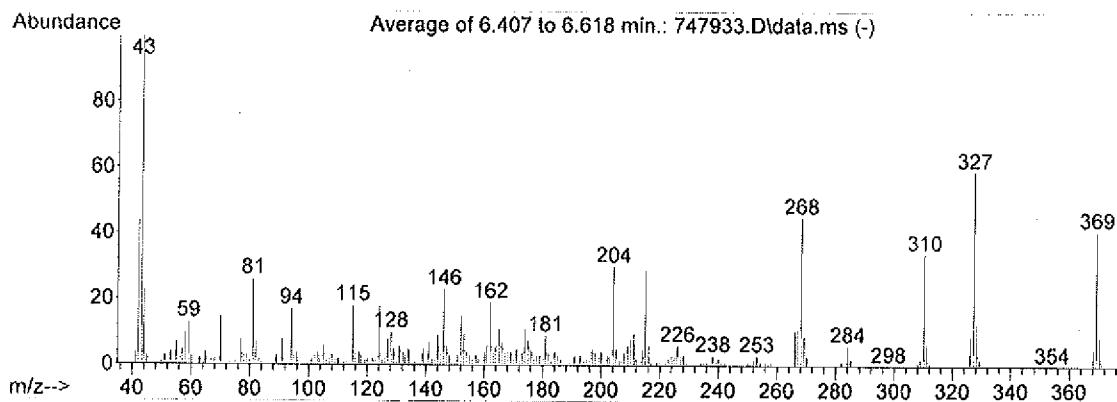
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## Information from Data File:

File Name : F:\Q4-2010\SYSTEM7\10\_08\_10\747933.D  
Operator : KAC  
Date Acquired : 8 Oct 2010 18:35  
Sample Name : HEROIN STD  
Submitted by :  
Vial Number : 33  
AcquisitionMeth: DRUGS.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST05a.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	6.45	C:\Database\SLI.L HEROIN	000561-27-3	99



***Last page..... ...no further data***